

Date: Wed, 27 Oct 93 04:30:29 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #85
To: Ham-Homebrew

Ham-Homebrew Digest Wed, 27 Oct 93 Volume 93 : Issue 85

Today's Topics:

8 pin Mic. connectors source?
How to do CW with a cb?
INTERMOD (2 msgs)
QRP Mail List
What's this cable? (2 msgs)

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 26 Oct 93 14:10:28 GMT
From: sdd.hp.com!col.hp.com!jms@hplabs.hpl.hp.com
Subject: 8 pin Mic. connectors source?
To: ham-homebrew@ucsd.edu

Jeffrey D. Angus (jangus@skyld.tele.com) wrote:
: Here we go again.

: I need to find a source of the Microphone Connectors used with most of
: todays equipment. This is the 8 Pin connector with a threaded sleeve.
: The female cord mounted connector is a Radio Shack 276-025 listed on
: page of the new (coupon enhanced) catalog. They used to stock the mating
: male chassis receptical. Philco carries them in some electronics and
: HAM stores, as part number T-700 and P-700 as well.

: If you want to tell me that your Radio Shack store still has them, fine,
: let me know who much and how many and I'll arrange to buy them through you.

: If you have a vendor source for these (like Allied or Newark and yes I
: already checked with them and they don't have them) let me know as well.

: 73 es GA from Jeff

: (Note, Newark does stock the old Motorola series 3/4" dia mic connectors)

I bought mine from HRO although you won't like the cost, I'll bet.
I think they cost me about \$5.00 each, plus their shipping and handling-
about \$4.00. I bought 5 or 6 and averaged out the shipping/handling.
HRO advertises in QST, CQ, and, I'll bet, 73 magazines.

Good luck. Mike, K0TER

Date: Tue, 26 Oct 1993 01:21:54 GMT
From: csus.edu!netcom.com!netcom!faunt@decwrl.dec.com
Subject: How to do CW with a cb?
To: ham-homebrew@ucsd.edu

If he transmits a constant carrier, keys an audio oscillator to produce
CW-like sounds, and identifies by voice, code practice over CB should
be legal anywhere, even in the US. Strikes me as being a good way to
get some practice. Keeping on legal frequencies may save you some
hassles, and is much more polite.
73, doug

Date: 26 Oct 93 13:12:01 GMT
From: rosevax!animal!mikef@uunet.uu.net
Subject: INTERMOD
To: ham-homebrew@ucsd.edu

>
> Hi everyone, This question should concern every soul that ever attempted
>to operate an H.T. in a mobile using a Mag Mount or other type of external
>'gain' antenna in a large city: >>>> INTERMOD ! The solution seems quite
>simple ... I noticed that when I'm swamped with intermod, going back to the
>'duddy' usually solves the problem at least partially. If one could attenuate
>the incoming signals from the external antenna on receive only and not affect
>anything during transmit, you would have the perfect combination for an H.T. in
>a car ... So what is really needed for so many of us is a "variable rf in-line
>attenuator" that would be rf-switched-out during transmit.

>
> Any ideas out there?
>

>

Thanks & 73 de Denis.

I have a Heath HW2P that is terrible on an external antenna in the city with intermod. I also used an amplifier in the car to get it from 2.5 watts (save a bit of battery) up to around 10 watts. This is a home brew amp.

My solution to the intermod was to build a helicoil front end for the receiver inside the amplifier. The relay switching made connecting the coil bandpass filter easy. Normally on an amp relay, two leads are shorted together to pass the receive signal. I just added my filter in the place of the short. I also added a switch to disable the filter for out of band receiving. With this, I also found that I had very low loss thru the filter (weak signal increase was barely changed with the circuit switched in or out). Intermod is GREATLY reduced!!!

I found a suitable circuit in "The VHF Manual" by Jesop (English Author, book sold in many Ham Radio stores) that gives a low loss (you don't need great sensitivity in the city anyway) during receive and the circuit is switched out during transmit.

Tuning is done on low power out of the rig thru the filter. Tune for max output. I found less than 1db loss.

Mike WA0VNH
mikef@rosemount.com

Date: 26 Oct 1993 09:49:49 +0200
From: agate!howland.reston.ans.net!pipex!sunic!news.funet.fi!butler.cc.tut.fi!
lehtori.cc.tut.fi!not-for-mail@ames.arpa
Subject: INTERMOD
To: ham-homebrew@ucsd.edu

Gregory Lapin (lapin@casbah.acns.nwu.edu) wrote:

> A friend of mine (Rajiv AA9CH) suggested a solution that I tried but didn't
> get it to work. I didn't really spend much time on this (intermod is
> almost non-existent for most of my operating area) and it seems logical so
> here goes:

> At the HT, place a T-connector with one leg going to the gain antenna. The
> open leg should be connected to a shorted 1/4 wave piece of coaxial cable,
> which appears as an open circuit at the frequency it is cut for and as a
> short circuit at frequencies far away (such as the pagers that cause many
> of the intermod problems). This seems like a pretty nifty little bandpass

> filter for the front end of the HT.

You seem to have mixed up things a bit. A shorted 1/4 wave stub acts as a parallel resonance (open circuit). What you actually want is short circuit at the offending frequency (series resonance) and this can be done with an _open_ 1/4 wave stub or a 1/2 wave _shorted_ stub at the offending frequency.

As open stubs are not truly open, I would suggest a shorted 1/2 stub, which is also easier to tune by a shorting needle.

Use low loss coax as this will determine the Q of the resonance and remember to include the velocity factor of the coax in the calculation.

Paul OH3LWR

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FIN-33200 TAMPERE
FINLAND

Date: Tue, 26 Oct 1993 09:21:12 GMT
From: news.Hawaii.Edu!uhunix3.uhcc.Hawaii.Edu!jherman@ames.arpa
Subject: QRP Mail List
To: ham-homebrew@ucsd.edu

In article <1993Oct25.210842.1792@porthos.cc.bellcore.com>
karayan@blitzen.cc.bellcore.com (karayannopoulos,george) writes:
>A couple of weeks ago, somebody posted a QRP construction article, where
>he mentioned the existence of a QRP mailing list. I lost that article and
>don't know who it was. Does anybody have any info on that mailing list?
>How do I get on it?

>
>
>

>George Karayannopoulos N2OWO
>karayan@cc.bellcore.com Bellcore, Red Bank, NJ
>Disclaimer: The opinions expressed here are mine and not my employer's.

George, to get on the QRP mail list send an email to: QRP-Request@Think.COM and in the msg just ask to subscribe. The owner will add your email address

to the group; you'll get posts via email. Usually no more than 10 articles are posted each day, although it's been a bit quiet lately. If you want to post any questions or comments to the rest of the group, then just use the email address: QRP@Think.COM

There are some very famous folks who hang out on there: one of the fastest CW ops in the country, Chuck Adams (70 wpm), is always building one thing or another. In fact, that is an alternative homebrew group! It seems everyone is building stuff either from scratch or from kits (lots of cheap QRP kits available: the Northern California QRP club is offering a 40M xcvr for about \$75). Always helpful advice is being passed about on there.

72 (the QRP'ers 73),
Jeff NH6IL

Date: 26 Oct 1993 13:03:47 GMT
From: olivea!inews.intel.com!ilx018-bb.intel.com!ilx049!dbraun@uunet.uu.net
Subject: What's this cable?
To: ham-homebrew@ucsd.edu

Scrounging in the dump behind the local cable TV company, I found a chunk of coax. It's labeled only "T-10" (or maybe T-12 if my memory is failing...). It's a bit bigger than RG-8, and has a shield consisting of two layers of aluminum braid and two layers of aluminum foil. From the outside in, they go: braid-foil-braid-foil-dielectric-center. The dielectric is foam.

This stuff looks like it might have really low loss for UHF. Does anyone know if this is a standard cable type? It is 75 ohms? Are connectors available? Perhaps regular N connectors for RG-8 might fit it? If I knew anyone who worked at the cable company, I would ask them.

--

Doug Braun Intel Israel, Ltd. M/S: IDC1-41
 Tel: 011-972-4-655069 dbraun@inside.intel.com

Date: 26 Oct 1993 22:54:15 GMT
From: sdd.hp.com!cs.utexas.edu!swrinde!emory!europa.eng.gtefsd.com!
howland.reston.ans.net!wupost!crcnis1.unl.edu!unlinfo.unl.edu!
mcduffie@network.ucsd.edu

Subject: What's this cable?
To: ham-homebrew@ucsd.edu

dbraun@ilx049.intel.com (Doug Braun) writes:

>Scrounging in the dump behind the local cable TV company,
>I found a chunk of coax. It's labeled only "T-10" (or maybe T-12
>if my memory is failing...). It's a bit bigger than RG-8, and
>has a shield consisting of two layers of aluminum braid and
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>braid-foil-braid-foil-dielectric-center. The dielectric is foam.

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>Does anyone know if this is a standard cable type? It is 75
>ohms? Are connectors available? Perhaps regular N connectors
>for RG-8 might fit it? If I knew anyone who worked at the
>cable company, I would ask them.

>--

>-----
>Doug Braun Intel Israel, Ltd. M/S: IDC1-41
> Tel: 011-972-4-655069 dbraun@inside.intel.com

People often confuse shielding with low loss. I don't know what particular cable you have found but would be surprised if the loss figures aren't beatable elsewhere. However, the shielding properties of that cable should be hard to beat.

Gary

Date: 27 Oct 1993 00:13:41 +0200
From: sdd.hp.com!usc!howland.reston.ans.net!pipex!sunic!news.funet.fi!
butler.cc.tut.fi!lehtori.cc.tut.fi!not-for-mail@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <2aikqt\$47q@cc.tut.fi>, <2ajm3n\$t2a@news.acns.nwu.edu>,
<2ajpgb\$u0@news.acns.nwu.edu>tle
Subject : Re: INTERMOD

Rajiv Dewan rdewan@casbah.acns.nwu.edu wrote:

> For a while I liked the simplicity and ease of construction of using
> a parallel tuned shorted stub for rejecting intermod. After trying it
> and computing the impedance it became evident that it did not do much.

> The impedance presented by the shorted stub is
> $50 \cdot \tan(157.345/147.345 \cdot \pi/2) = -467$ ohms (capacitative)
> in parallel with the antenna. This will may not do much to attenuate
> the offending signal at 157.345.

I had similar experiences when I tried to help a new ham, who had severe intermods on his HT from a nearby FM (100 MHz) station. First we tried a shorted 1/4 wave stub at 145 MHz without much help. By calculating the impedance in the 87-108 MHz range, it was clear why it did not work as expected.

A new shorted stub tuned to 1/2 wave of the unwanted frequency was installed and this helped a lot, not only reducing the intermods from the BC-station but also reducing intermods from a pager system, which is only 600 kHz above our repeater output frequency.

The only explanation I could think of is that the HT had an untuned front end and by reducing the level of the strongest signal in the pre-mixer pass band, the mixer was no longer driven into gain compression, thus reducing other intermod products too.

To sum up, if you have harmful intermods from a frequency you can't filter out, try to locate the strongest signal within the pre-mixer bandwidth, even if that strong signal doesn't cause harmful intermods to those frequencies you are using. Make a shorted 1/2 wave stub for this strong signal and check if it also reduced the harmful interference you are trying to get rid off.

Of course, notch filters are only useful in fixed installations, they are hardly usable in mobile installations.

Paul OH3LWR

Date: 27 Oct 93 07:03:21 GMT
From: elroy.jpl.nasa.gov!grian!morris@uunet.uu.net
To: ham-homebrew@ucsd.edu

References <CF83An.xK@world.std.com>, <CF9Ft3.9H8@srngenprp.sr.hp.com>,
<1993Oct25.191257.27418@icd.teradyne.com>
Subject : Re: Need Louder PC Speaker for Code Practice.

ardai@wizard.atb.teradyne.com (Michael Ardai) writes:

>In article <CF9Ft3.9H8@srngenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:

>-Richard L Barnaby (rbarnaby@world.std.com) wrote:

>-: I'd like to add a simple speaker to an IBM PC that is externally
>-: controlled. Just an op-ap, a pot, and a speaker? Tap into the
>-: pc's speaker "jack"?

>Friendly warning - on most PCs, one side of the speaker is tied to +5. If
>you do add an external speaker jack, make sure it is insulated from ground!

On my machine it is hooked to +5, as you said. I mounted a 1/8" stereo
headphone jack on the plastic case, and hooked up a small 2.5k volume
control. this allows me to use a set of Walkman-style headphones for
code practice (or game-playing), with a volume control. It is also
wife-friendly (she frequently goes to bed earlier than I do). With
earphones an amplifier probably won't be needed.

--

Mike Morris WA6ILQ | This space intentionally left blank.
PO Box 1130 |
Arcadia, CA. 91077 | All opinions must be my own since nobody pays
818-447-7052 evenings | me enough to be their mouthpiece...

Date: Tue, 26 Oct 1993 16:05:25 GMT

From: sgi!fido.asd.sgi.com!odin!chuck.dallas.sgi.com!adams@ames.arpa

To: ham-homebrew@ucsd.edu

References <18OCT199311442350@vax2.concordia.ca>, <2ahetv\$7ig@news.acns.nwu.edu>,
<1993Oct26.131201.27987@rosevax.rosemount.com>

Subject : Re: INTERMOD

Jeff's post on the qrp mailing group is correct, except for one
small point. I'm not famous and I am not the fastest CW op in
the country or the world. But I might be in the top 50%. :-)

The Northern California QRP Club kit, called the NorCal 40, is
history. They made 100 kits and sold all of them in a hurry.
This kit, designed by Wayne Burdick, N6KR, famous for his Safari
multiband rig that appeared in several issues of QEX, is small
and well designed. I own one and wouldn't part with it.

So, come on down. Don, tell the people what they've won.....

73 es cul de k5fo/qrp dit dit

--

SIG

-----cut here-----

Chuck Adams, K5F0 - CP60 (clocked at 70+wpm 10/25/93 receiving)
adams@sgi.com

End of Ham-Homebrew Digest V93 #85
